

**THE JUDICIAL RETIREMENT SYSTEM
OF NEW JERSEY
REPORT ON AN INVESTIGATION OF EXPERIENCE
PREPARED AS OF JUNE 30, 2005**

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October 10, 2006

State House Commission
The Judicial Retirement System
of New Jersey
Trenton, New Jersey 08625-0295

Members of the Commission:

This year an actuarial investigation of the mortality and service experience of the members and beneficiaries of the retirement system was made in accordance with the provisions of Section 31 of Chapter 140, P.L. 1973. This Section specifies that such an investigation shall be made once in every three-year period. The results of this investigation, which examined the experience of the System from July 1, 2002 to June 30, 2005 are described in the attached report.

Please note that in the prior studies we have examined only the demographic assumptions and have not addressed the economic assumptions, namely the interest rate assumption and the current salary increase assumption. However, in light of the recent economic assumption changes that were approved by the Treasurer, we have included an examination of the salary increase assumption in this study.

We are available at the Board's convenience to discuss this report.

Respectfully submitted,

(Signed) JANET H. CRANNA

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**REPORT ON AN INVESTIGATION OF THE EXPERIENCE OF THE
JUDICIAL RETIREMENT SYSTEM OF NEW JERSEY
PREPARED AS OF JUNE 30, 2005**

I. INTRODUCTION

Section 31 of Chapter 140, P.L. 1973 of the New Jersey Statutes provides that once in every three-year period the actuary shall examine in detail the mortality and service experience of the members and beneficiaries of the Retirement System. This investigation is designed to ensure that the tables used for determining expected liabilities of the Retirement System are consistent with recent experience. If tables are not updated periodically, the liabilities of the System may be misstated, and resulting contributions either too large or too small to fund the actual accruing liabilities.

This report summarizes the Retirement System's experience for the period from July 1, 2002 to June 30, 2005. Experience for active male and female members and disabled members were combined for the study. Mortality experience among service retired members and beneficiaries were based on gender. In instances where the data being examined appeared inconsistent with prior results or incomplete, we made no recommendation. These items will be reviewed closely when the next scheduled experience study is prepared as of June 30, 2008 and proposed changes, if warranted, will be recommended at that time.

Also, as noted earlier, we have included an examination of the current salary increase assumption in this study. (Significant changes to the other economic assumptions were approved by the Treasurer and were effective for fiscal year 2006.)

II. EXAMINATION OF EXPERIENCE

As noted earlier, the examination this year covers the three-year period from July 1, 2002 to June 30, 2005. Where appropriate, we have made reference to trends that were first identified in prior studies.

The experience among active members has been compared with the experience expected according to the active service and retirement tables adopted by the Commission following the study that was prepared as of June 30, 2002. The experience among retired members and beneficiaries has also been compared with the experience expected according to the current mortality tables.

In the case of withdrawals, the current assumption is that no termination will occur prior to retirement. The information presented shows the actual number of vested and non-vested terminations. In investigating the experience with respect to death, male and female members were examined separately. With regard to disability and retirement, members were treated in one group. The expected number of separations from service on account of withdrawal, death, disability and service retirement were calculated by multiplying the rates of separation used as a basis for the active service tables by the number of those exposed to risk. The actual number of those who had separated from service was then compared with the expected number. If the ratio of actual to expected is 1.000, the tables have exactly predicted what actually occurred. If the ratio of actual to expected is greater than 1.000, then the tables have underestimated actual experience. If the ratio is less than 1.000, then the tables have overstated actual experience.

Finally, in accordance with the current salary increase assumption which was set forth in Chapter 62, P.L. 1994, the expected salaries of those members who remain in service from year to year were obtained and

these expected salaries were compared with the actual salaries. Again, a ratio of actual to expected of 1.000 would indicate that actual salary increases were identical to anticipated increases while a ratio greater than 1.000 indicates that salaries have increased faster than anticipated and a ratio less than 1.000 indicates that salaries have increased slower than anticipated.

The following tables examine the experience for active and inactive employees.

(A) ACTIVE PLAN EXPERIENCE

The first portion of this section contains a summary of active plan experience which examines the following rates:

- Withdrawal Rates
- Death Rates
- Disability Rates
- Service Retirement Rates
- Salary Increase Rates

TABLE 1

**COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE**

VESTED AND NON-VESTED WITHDRAWALS

Central Age of Group	Exposures	Actual Terminations	Expected Terminations	Ratio of Actual to Expected
35	0	0	0.00	0.0000
40	17	0	0.00	0.0000
45	87	1	0.00	0.0000
50	213	3	0.00	0.0000
55	291	2	0.00	0.0000
58	55	0	0.00	0.0000
59	59	0	0.00	0.0000
Total	722	6	0.00	0.0000

TABLE 2
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE

DEATHS

Sex	Central Age of Group	Exposures	Actual Deaths	Expected Deaths	Ratio of Actual To Expected
Male	20	0	0	0.00	0.0000
	25	0	0	0.00	0.0000
	30	0	0	0.00	0.0000
	35	0	0	0.00	0.0000
	40	3	0	0.00	0.0000
	45	53	0	0.07	0.0000
	50	148	0	0.35	0.0000
	55	256	0	1.01	0.0000
	60	311	0	1.92	0.0000
	65	174	0	1.58	0.0000
	68	29	0	0.36	0.0000
	69	21	0	0.29	0.0000
	Total	995	0	5.58	0.0000
Female	20	0	0	0.00	0.0000
	25	0	0	0.00	0.0000
	30	0	0	0.00	0.0000
	35	0	0	0.00	0.0000
	40	14	0	0.01	0.0000
	45	34	0	0.04	0.0000
	50	71	0	0.12	0.0000
	55	88	0	0.22	0.0000
	60	50	0	0.22	0.0000
	65	33	0	0.23	0.0000
	68	4	0	0.04	0.0000
	69	1	0	0.01	0.0000
	Total	295	0	0.89	0.0000

TABLE 3
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
DISABILITY RETIREMENTS

Central Age of Group	Exposures	Actual Disabilities	Expected Disabilities	Ratio of Actual to Expected
35	0	0	0.00	0.0000
40	17	0	0.01	0.0000
45	87	0	0.06	0.0000
50	219	1	0.26	3.8462
55	344	0	0.67	0.0000
60	361	0	1.19	0.0000
65	207	0	0.96	0.0000
68	33	0	0.19	0.0000
69	22	0	0.15	0.0000
Total	1,290	1	3.49	0.2865

TABLE 4
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE

RATES OF RETIREMENT

Type	Age	Exposures	Actual Retirements	Expected Retirements	Ratio of Actual to Expected
Retirements at age 60 with 20 years of judicial service or age 65 with 15 years of judicial service	60	12	5	3.60	1.3889
	61	13	4	2.60	1.5385
	62	13	3	2.60	1.1538
	63	10	3	2.00	1.5000
	64	8	2	1.60	1.2500
	65	24	9	6.00	1.5000
	66	15	4	3.00	1.3333
	67	14	0	2.80	0.0000
	68	16	3	3.20	0.9375
	69	16	0	3.20	0.0000
	Total	141	33	30.60	1.0784
Retirements after age 59 with less than 12 years of judicial service	60	36	1	0.00	0.0000
	61	28	1	0.00	0.0000
	62	28	1	0.00	0.0000
	63	18	0	0.00	0.0000
	64	16	0	0.00	0.0000
	65	10	1	0.00	0.0000
	66	17	0	0.00	0.0000
	67	10	0	0.00	0.0000
	68	9	1	0.00	0.0000
	69	3	0	0.00	0.0000
	Total	175	5	0.00	0.0000

TABLE 4
(Continued)

**COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE**

RATES OF RETIREMENT

Type	Age	Exposure s	Actual Retirements	Expected Retirements	Ratio of Actual to Expected
Retirements after age 59 with 12 or more years of judicial service (but not age 60 with 20 years of judicial service or age 65 with 15 years of judicial service)	60	30	2	0.00	0.0000
	61	29	1	0.00	0.0000
	62	26	0	0.00	0.0000
	63	24	0	0.00	0.0000
	64	24	0	0.00	0.0000
	65	7	0	1.75	0.0000
	66	4	0	0.00	0.0000
	67	6	1	0.00	0.0000
	68	8	0	0.00	0.0000
	69	3	0	0.00	0.0000
	Total	161	4	1.75	2.2857
Early retirement prior to age 60 with 5 years of judicial service and 25 or more years of aggregate public service	Under 53	6	0	0.00	0.0000
	53	9	0	0.00	0.0000
	54	12	0	0.00	0.0000
	55	10	0	0.00	0.0000
	56	10	1	0.00	0.0000
	57	12	0	0.00	0.0000
	58	14	0	0.00	0.0000
	59	18	0	0.00	0.0000
	Total	91	1	0.00	0.000

TABLE 5
COMPARISON OF ACTUAL AND EXPECTED
ACTIVE SALARY INCREASES

CENTRAL AGE OF GROUP	SALARY INCREASE			
	Actual Salary from Previous Year	Actual	Expected	Ratio of Actual to Expected
40	\$ 1,128,000	\$ 1,128,000	\$ 1,189,476	0.948
45	10,055,000	10,055,000	10,602,998	0.948
50	26,077,000	26,095,000	27,498,197	0.949
55	45,738,250	45,747,250	48,230,985	0.949
60	50,047,250	50,061,500	52,774,825	0.949
65	31,628,500	31,637,500	33,352,253	0.949
Greater than 67	8,340,250	8,340,250	8,794,794	0.948
Total	\$ 173,014,250	\$ 173,064,500	\$ 182,443,528	0.949

INACTIVE PLAN EXPERIENCE

The second portion of this section contains a summary of inactive plan experience which examines the following rates:

- Service Retirement and Beneficiary Mortality Rates
- Disability Mortality Rates

TABLE 6

**COMPARISON OF ACTUAL AND EXPECTED CASES OF DEATH
AMONG SERVICE RETIRED MEMBERS AND BENEFICIARIES**

Sex	Central Age of Group	Exposures	Actual Deaths	Expected Deaths	Ratio of Actual to Expected
Male	20	6	0	0.0000	0.0000
	45	0	0	0.0000	0.0000
	50	3	0	0.0072	0.0000
	55	9	0	0.0449	0.0000
	60	36	0	0.2693	0.0000
	65	97	0	1.1281	0.0000
	70	190	3	3.8950	0.7702
	75	177	8	5.8286	1.3725
	80	141	6	5.4676	1.0974
	85	70	10	4.1109	2.4326
	90 and over	39	5	4.7241	1.0584
	Total	768	32	25.4757	1.2560
Female	20	1	0	0.0000	0.0000
	40	0	0	0.0000	0.0000
	45	3	0	0.0035	0.0000
	50	4	0	0.0075	0.0000
	55	13	0	0.0332	0.0000
	60	11	0	0.0488	0.0000
	65	43	1	0.3257	3.0703
	70	75	0	0.9503	0.0000
	75	61	0	1.4254	0.0000
	80	91	3	3.7089	0.8089
	85	62	4	3.7025	1.0804
	90 and over	93	9	9.2799	0.9698
	Total	457	17	19.4857	0.8724

TABLE 7

**COMPARISON OF ACTUAL AND EXPECTED CASES OF DEATH
AMONG DISABLED MEMBERS**

Central Age of Group	Exposures	Actual Deaths	Expected Deaths	Ratio of Actual to Expected
45	0	0	0.0000	0.0000
50	1	0	0.0031	0.0000
55	0	0	0.0000	0.0000
60	0	0	0.0000	0.0000
65	2	0	0.0771	0.0000
70	6	1	0.3211	3.1143
75	5	0	0.4282	0.0000
80	5	1	0.6426	1.5562
85	2	0	0.3445	0.0000
90 and over	3	0	0.9595	0.0000
Total	24	2	2.7761	0.7204

III. COMMENTS AND GENERAL RECOMMENDATION OF ACTUARIES

RATES OF WITHDRAWAL

The current assumption is that no vested (meeting the vested eligibility requirement of five or more years of judicial service and ten or more years of aggregate public service) or non-vested (prior to meeting the vesting requirement) terminations will occur. Table 1 illustrates that there were 6 terminations out of 722 exposures, or approximately 0.8%, during the study period. This is in line with the experience from the prior two studies and supports the current assumption. Therefore, we do not recommend any change to the assumed rates of withdrawal.

RATES OF DEATH AMONG ACTIVE MEMBERS

The data (summarized in Table 2) examined during the three-year measurement period shows that the experience for male and female active members are within an acceptable range of that expected and no change is recommended for these rates.

RATES OF DISABILITY RETIREMENT

Table 3 shows that actual disabilities for active members were within an acceptable range of that expected and no change is recommended to the assumed rates of disability among active members.

RATES OF SERVICE RETIREMENT

The current assumption is that 30% at age 60, 25% at age 65 and 20% at all other ages of the active members who have attained age 60 with 20 years of judicial service or who have attained age 65 with 15 years of judicial service will retire each year up to age 70. At age 70, all remaining active members are assumed to retire. Also, there is an additional 25% probability that judges who are at least age 60 and

have more than 12 years of judicial service (but not age 60 with 20 years of judicial service or age 65 with 15 years of judicial service) will retire at age 65.

The first section of Table 4 presents the experience for members who are age 60 or over with at least 20 years of judicial service or who are at least age 65 with 15 or more years of judicial service. Actual retirements for the three-year period were about 108% of that expected (roughly 23% of those eligible actually retired when 22% was expected). This is within an acceptable range of that expected and no change is recommended to the current assumed rates of retirement.

The second section of Table 4 summarizes the experience for members who are at least age 60 and have less than 12 years of judicial service. Although no retirements were expected from this group during the three year study period, 5 judges actually retired. However, this incidence of retirement is relatively small and we are not recommending any change to this assumption at this time.

The next section of Table 4 contains the experience for retirements of members with 12 or more years of judicial service (but not age 60 with 20 years of judicial service or age 65 with 15 years of judicial service). The number of actual retirements is within an acceptable range of that expected, therefore, we do not recommend any change to the assumed rates of retirement within this group.

Similarly, the last section of Table 4 summarizes the data for members who meet the Early Retirement eligibility (prior to age 60 while serving as a judge with 5 consecutive years of judicial service and 25 or more years of aggregate public service). The current assumption is that there are no retirements for this group. There was 1 actual retirement out of 91 exposures. This is within an accepted range of that expected and we do not recommend any changes in this assumption.

RATES OF SALARY INCREASE

Table 5 shows that the current salary increase assumption of 5.45% per year is less than the actual salary increase experience during the study period. However, based on historical data we have accumulated for our three previous experience studies, it appears that members of the system do not receive salary increases on an annual basis. Since the examination of the four experience study periods does not identify a recognizable long-term annual salary increase pattern, we recommend no changes to the rates at this time. This assumption will be carefully monitored and reviewed when the next scheduled study is prepared as of June 30, 2008.

RATES OF MORTALITY AMONG RETIRED MEMBERS AND BENEFICIARIES

The data for healthy inactive mortality, which is summarized in Table 6, shows that the actual mortality experience among service retired male and female members and beneficiaries are within the acceptable range of that expected. Therefore, we do not recommend any changes in both assumptions.

Table 7 shows that the experience for death among disabled members is well in line with that expected and no changes are recommended.

IV. PROPOSED NEW ASSUMPTIONS

The experience investigation for the period from July 1, 2002 through June 30, 2005 was based on information received from the Division of Pensions and Benefits for the June 30, 2003 through June 30, 2005 valuations. Based on an examination of the three year study period, we are proposing the following changes:

<u>Rates</u>	<u>Proposed Changes</u>
Vested and Non-Vested Withdrawals	No Change
Active Death	
• Male	No Change
• Female	No Change
Disability	No Change
Retirement	
• Age 60 with 20 years of judicial service or age 65 with 15 years of judicial service	No Change
• Age 60 with less than 12 years of judicial service	No Change
• Age 60 with twelve or more years of judicial service (but not meeting the 60/20 or 65/15 eligibility)	No Change
• Less than age 60 with 5 years of judicial service and 25 or more years of public service	No Change
Salary Increase	No Change
Inactive Mortality	
• Retired male members and beneficiaries	No Change
• Retired female members and beneficiaries	No Change
• Disability retirements	No Change

The following tables give a comparison of the present, actual and proposed rates of separation from active service and rates of mortality for retired members at quinquennial ages.

TABLE 8

**COMPARISON OF ACTUAL AND EXPECTED RATES OF SEPARATION
FROM ACTIVE SERVICE**

VESTED AND NON-VESTED WITHDRAWALS

Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
35	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000
45	0.00000	0.01149	0.00000
50	0.00000	0.01408	0.00000
55	0.00000	0.00687	0.00000
60	0.00000	0.00000	0.00000
65	0.00000	0.00000	0.00000
68	0.00000	0.00000	0.00000
69	0.00000	0.00000	0.00000

TABLE 9
COMPARISON OF ACTUAL AND EXPECTED RATES OF SEPARATION
FROM ACTIVE SERVICE

DEATHS

Sex	Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
Male	20	0.00037	0.00000	0.00037
	25	0.00039	0.00000	0.00039
	30	0.00046	0.00000	0.00046
	35	0.00061	0.00000	0.00061
	40	0.00085	0.00000	0.00085
	45	0.00126	0.00000	0.00126
	50	0.00222	0.00000	0.00222
	55	0.00393	0.00000	0.00393
	60	0.00615	0.00000	0.00615
	65	0.00929	0.00000	0.00929
	68	0.01239	0.00000	0.01239
	69	0.01387	0.00000	0.01387
Female	20	0.00020	0.00000	0.00020
	25	0.00025	0.00000	0.00025
	30	0.00034	0.00000	0.00034
	35	0.00047	0.00000	0.00047
	40	0.00067	0.00000	0.00067
	45	0.00103	0.00000	0.00103
	50	0.00165	0.00000	0.00165
	55	0.00257	0.00000	0.00257
	60	0.00428	0.00000	0.00428
	65	0.00714	0.00000	0.00714
	68	0.00970	0.00000	0.00970
	69	0.01092	0.00000	0.01092

TABLE 10

**COMPARISON OF ACTUAL AND EXPECTED RATES OF SEPARATION
FROM ACTIVE SERVICE**

DISABILITY RETIREMENTS

Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
35	0.00026	0.00000	0.00026
40	0.00034	0.00000	0.00034
45	0.00063	0.00457	0.00063
50	0.00115	0.00000	0.00115
55	0.00193	0.00000	0.00193
60	0.00326	0.00000	0.00326
65	0.00477	0.00000	0.00477
68	0.00599	0.00000	0.00599
69	0.00652	0.00000	0.00652

TABLE 11
COMPARISON OF ACTUAL AND EXPECTED RATES OF SEPARATION
FROM ACTIVE SERVICE
RETIREMENTS

Type	Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
Age 60 with 20 years of judicial service or age 65 with 15 years of judicial service	60	0.30000	0.41667	0.30000
	61	0.20000	0.30769	0.20000
	62	0.20000	0.23077	0.20000
	63	0.20000	0.30000	0.20000
	64	0.20000	0.25000	0.20000
	65	0.25000	0.37500	0.25000
	66	0.20000	0.26667	0.20000
	67	0.20000	0.00000	0.20000
	68	0.20000	0.18750	0.20000
	69	0.20000	0.00000	0.20000
After age 59 with less than 12 years of judicial service	60	0.00000	0.02778	0.00000
	61	0.00000	0.03571	0.00000
	62	0.00000	0.03571	0.00000
	63	0.00000	0.00000	0.00000
	64	0.00000	0.00000	0.00000
	65	0.00000	0.10000	0.00000
	66	0.00000	0.00000	0.00000
	67	0.00000	0.00000	0.00000
	68	0.00000	0.11111	0.00000
	69	0.00000	0.00000	0.00000
After age 59 with twelve or more years of judicial service (but not age 60 with 20 years of judicial service or age 65 with 15 years of judicial service)	60	0.00000	0.06667	0.00000
	61	0.00000	0.03448	0.00000
	62	0.00000	0.00000	0.00000
	63	0.00000	0.00000	0.00000
	64	0.00000	0.00000	0.00000
	65	0.25000	0.00000	0.25000
	66	0.00000	0.00000	0.00000
	67	0.00000	0.16667	0.00000
	68	0.00000	0.00000	0.00000
	69	0.00000	0.00000	0.00000
Prior to age 60 with 5 years of judicial service and 25 or more years of aggregate public service	50	0.00000	0.00000	0.00000
	51	0.00000	0.00000	0.00000
	52	0.00000	0.00000	0.00000
	53	0.00000	0.00000	0.00000
	54	0.00000	0.00000	0.00000
	55	0.00000	0.00000	0.00000
	56	0.00000	0.10000	0.00000
	57	0.00000	0.00000	0.00000
	58	0.00000	0.00000	0.00000
	59	0.00000	0.00000	0.00000

TABLE 12
COMPARISON OF ACTUAL AND EXPECTED
SALARY INCREASES

Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
40	5.45%	0.00%	5.45%
45	5.45%	0.00%	5.45%
50	5.45%	0.07%	5.45%
55	5.45%	0.02%	5.45%
60	5.45%	0.03%	5.45%
65	5.45%	0.03%	5.45%
Greater than 67	5.45%	0.00%	5.45%

TABLE 13

**COMPARISON OF ACTUAL AND EXPECTED RATES OF MORTALITY
AMONG RETIRED MEMBERS AND BENEFICIARIES**

MALES

Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
45	0.00156	0.00000	0.00156
50	0.00282	0.00000	0.00282
55	0.00477	0.00000	0.00477
60	0.00720	0.00000	0.00720
65	0.01132	0.00000	0.01132
70	0.02000	0.01579	0.02000
75	0.03366	0.04520	0.03366
80	0.04000	0.04255	0.04000
85	0.06000	0.14286	0.06000
90 and over	0.11000	0.12810	0.11000

FEMALES

Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
40	0.00067	0.00000	0.00067
45	0.00103	0.00000	0.00103
50	0.00165	0.00000	0.00165
55	0.00257	0.00000	0.00257
60	0.00428	0.00000	0.00428
65	0.00714	0.02326	0.00714
70	0.01266	0.00000	0.01266
75	0.02428	0.00000	0.02428
80	0.04000	0.03297	0.04000
85	0.06000	0.06452	0.06000
90 and over	0.08000	0.09677	0.08000

TABLE 14

**COMPARISON OF ACTUAL AND EXPECTED RATES OF MORTALITY
OF DEATH AMONG DISABLED MEMBERS**

Central Age of Group	Current Rates	Actual Rates	Proposed Rates: No Change
45	0.00477	0.00000	0.00477
50	0.00720	0.00000	0.00720
55	0.01132	0.00000	0.01132
60	0.02000	0.00000	0.02000
65	0.03366	0.00000	0.03366
70	0.05531	0.16667	0.05531
75	0.08969	0.00000	0.08969
80	0.13436	0.20000	0.13436
85	0.19118	0.00000	0.19118
90 and over	0.26529	0.00000	0.26529

V. COST IMPACT OF THE PROPOSED ASSUMPTIONS

This section would normally contain the impact on annual plan costs of the changes proposed in the previous section. However, as noted in Section IV, we do not recommend any changes to the assumptions at this time.